

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
10 November 2005 (10.11.2005)

PCT

(10) International Publication Number  
**WO 2005/107207 A1**

(51) International Patent Classification<sup>7</sup>: **H04L 29/06**,  
29/08, 12/18, A61B 5/00, H04L 12/56

(21) International Application Number:  
PCT/GB2005/001590

(22) International Filing Date: 26 April 2005 (26.04.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0409582.4 29 April 2004 (29.04.2004) GB

(71) Applicant (for all designated States except US): **BRITISH  
TELECOMMUNICATIONS PUBLIC LIMITED  
COMPANY** [GB/GB]; 81 Newgate Street, London,  
Greater London EC1A 7AJ (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **NEKOVEE, Maziar**  
[NL/GB]; 9 Wilkes Court, Kesgrave, Ipswich, Suffolk IP5  
2EQ (GB). **BURBRIDGE, Trevor** [GB/GB]; 4 Lonsdale  
Close, Ipswich, Suffolk IP4 4HB (GB). **SOPPERA, An-  
drea** [IT/GB]; 49 Cemetery Road, Ipswich, Suffolk IP4  
2JA (GB).

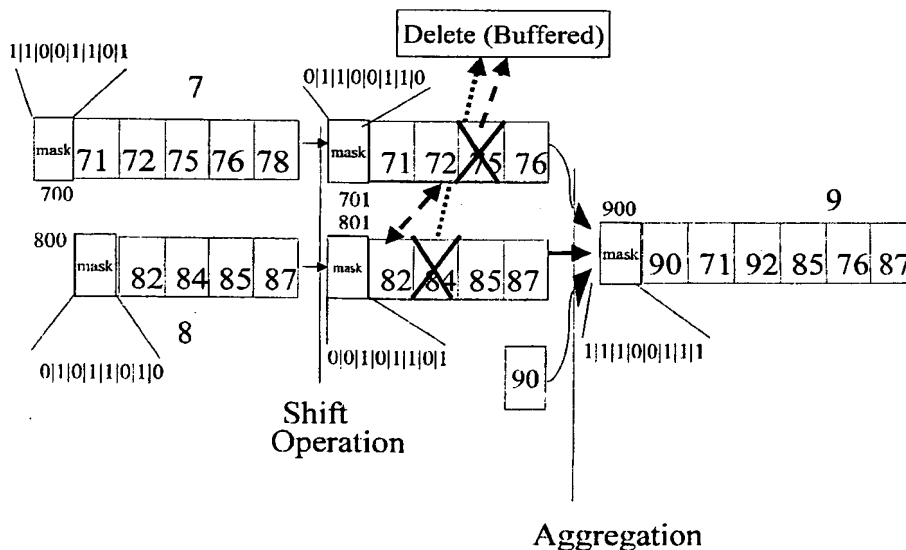
(74) Agent: **LIDBETTER, Timothy, Guy, Edwin**: BT Group  
Legal Intellectual Property Department, PP C5A, BT Centre,  
81 Newgate Street, London, Greater London EC1A 7AJ  
(GB).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,  
MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM,  
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY,  
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,  
ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: EVENT NOTIFICATION NETWORK



(57) Abstract: Data collected by sensors (10, 30) is transmitted to data collection points (31, 61) over a network using an epidemic protocol in which data received by a relay (3) is forwarded to a randomly-selected group of further relays (4, 5, 6) unless the same data has been previously received by the relay (3) or the data is time-expired. Data received by a relay (3) from different sources (1, 2, 30) in the same time-frame is aggregated using a Bloom filter process so that in each time frame only a single Bloom filter message is transmitted by each relay.

WO 2005/107207 A1



**Published:**

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*